



## Lo Herma Scoping Study Demonstrates Potential for Low Cost ISR Uranium Operation in Wyoming

GTI Energy Ltd (**GTI** or **Company**) encloses a replacement ASX release relating to the Lo Herma Scoping Study released today. The updated announcement corrects the NPV breakeven uranium price over the economic evaluation period to ~US\$60/lb rather than ~US\$65/lb.

The announcement has been authorised for release by:

Matthew Foy Company Secretary **GTI Energy Ltd** 





## Lo Herma Scoping Study Demonstrates Potential for Low Cost ISR Uranium Operation in Wyoming

GTI Energy Limited ASX: GTR (**GTI** or the **Company**) is pleased to announce the results from a Scoping Study (**Study**) for the potential future development of its 100% owned Lo Herma Uranium Project (**Lo Herma Project** or **Project**) in Wyoming's Southern Powder River Basin, USA.

GTI engaged leading Wyoming engineering group BRS Engineering Inc. (**BRS**) to conduct the Study, prepared in accordance with the JORC Code (2012) for ASX listed companies. BRS has significant experience with Wyoming ISR uranium project development from exploration through to construction and rehabilitation.

## **Cautionary Statement**

The Scoping Study referred to in this ASX release has been undertaken for the purpose of initial evaluation of a potential 800,000 lb  $U_3O_8$  per annum in-situ recovery ('ISR') mining operation with a 5.98Mlb  $U_3O_8$  Production Target over 7 years at the Lo Herma Project near Casper Wyoming, USA. The study is a preliminary technical and economic assessment of the potential viability of the Project.

The Scoping Study outcomes, Production Target and forecast financial information referred to in this release are based on low accuracy level technical and economic assessments that are insufficient to support estimation of Ore Reserves. The Scoping Study was calculated and is presented in US dollars to an accuracy level of +/- 30-40%. While each of the modifying factors was considered and applied, there is no certainty of eventual conversion to Ore Reserves or that the Production Target itself will be realised. Further exploration and evaluation work and appropriate studies are required before GTI Energy will be in a position to estimate any Ore Reserves or to provide any assurance of an economic development case.

Of the JORC compliant Mineral Resource scheduled for ISR extraction in the Scoping Study production plan, approximately 32% is categorised as an Indicated Mineral Resource and 68% is Inferred, no Exploration Target Range mineralisation is included. There is a low level of geological confidence associated with inferred mineral resources and there is no certainty that further exploration work will result in the determination of indicated mineral resources or that the production target itself will be realised. The stated production target is based on the Company's current expectations of future results or events and should not be solely relied upon by investors when making investment decisions. Further evaluation work and appropriate studies are required to establish sufficient confidence that this target will be met. GTI Energy notes that the style of mineralisation and the experience to date in converting Inferred Mineral Resources to the Indicated category provides a reasonable basis for inclusion as confirmed by the Competent Person.

The Mineral Resources underpinning the Production Target in the Scoping Study have been prepared by a Competent Person in accordance with the requirements of the JORC Code (2012). The Competent Person's Statement is found on pages 43 and 44 of this ASX release. For full details of the Mineral Resource Estimate, please refer to GTI Energy's ASX release dated 16 December 2024 "Major 50% Upgrade Boosts Lo Herma Uranium Resource to 8.57Mlbs, Scoping Study Initiated".



## **Cautionary Statement Continued**

GTI Energy confirms that it is not aware of any new information or data that materially affects the information included in that release. All material assumptions and technical parameters underpinning the estimates in that ASX release continue to apply and have not materially changed.

This release contains a series of forward-looking statements. Generally, the words "expect," "potential", "intend," "estimate," "will" and similar expressions identify forward-looking statements. By their very nature forward-looking statements are subject to known and unknown risks and uncertainties that may cause our actual results, performance or achievements, to differ materially from those expressed or implied in any of our forward-looking statements, which are not guarantees of future performance.

Statements in this release regarding GTI Energy's business or proposed operations, which are not historical facts, are forward-looking statements that involve risks and uncertainties, such as Mineral Resource Estimates, market prices of metals, capital and operating costs, changes in project parameters as plans continue to be evaluated, continued availability of capital and financing and general economic, market or business conditions, and statements that describe GTI Energy's future plans, objectives or goals, including words to the effect that GTI Energy or Management expects a stated condition or result to occur.

Forward-looking statements are necessarily based on estimates and assumptions that, while considered reasonable by GTI Energy, are inherently subject to significant technical, business, economic, competitive, political and social uncertainties and contingencies. Since forward-looking statements address future events and conditions, by their very nature, they involve inherent risks and uncertainties and are not guarantees of future performance. Actual results and future events could differ materially from that anticipated. These and all subsequent written and oral forward-looking statements are based on estimates and opinions of GTI Energy on the dates they are made and expressly qualified in their entirety by this Statement. The Company assumes no obligation to update forward-looking information, or statements should circumstances or estimates or opinions change. Investors are cautioned not to place undue reliance on forward-looking statements, which speak only as of the date they are made.

GTI Energy has concluded that it has a reasonable basis for providing these forward-looking statements and the forecast financial information included in this ASX release. This includes a reasonable basis to expect that it will be able to fund the development of the Lo Herma Project upon successful delivery of key additional evaluation and regulatory milestones. The supporting reasons for these conclusions are outlined throughout this ASX release and within Appendix A of this announcement. While GTI Energy considers all of the material assumptions to be based on reasonable grounds, there is no certainty that they will prove to be correct or that the range of outcomes indicated by the Scoping Study will be achieved.

To achieve the range of outcomes indicated in the Scoping Study, pre-production funding of approximately US\$43m for the preferred base case +/- 30-40%, will likely be required. There is no certainty that GTI will be able to source that amount of funding when required. It is also possible that such funding may only be available on terms that may be dilutive to or otherwise affect the value of GTI Energy's shares. It is also possible that GTI Energy could pursue other value realisation strategies such as a sale, partial sale or joint venture of the Lo Herma Project. These could materially reduce GTI Energy's proportionate ownership of the Lo Herma Project.

Given the uncertainties involved, investors should not make any investment decisions based solely on the results of the Scoping Study.

No Ore Reserve has been declared. This ASX release has been prepared in compliance with the current JORC Code (2012) and the ASX Listing Rules. All material assumptions, including sufficient progression of all JORC modifying factors, on which the production target and forecast financial information are based have been included in this ASX release.







## **Scoping Study Key Outcomes**

- The Lo Herma Uranium Project Scoping Study confirms potential for development as a competitive low-cost uranium operation using the in-situ recovery (**ISR**) process.
- The Scoping Study focused on a preferred base case for a central processing plant (CPP) and also evaluated an alternative satellite operation (Satellite Operation). Both options provide strong economics and optionality for GTI in its future development.
- Life-of mine (LOM) Production Target of 5.98 Mlbs  $U_3O_8$  over 7 years, with an annual  $U_3O_8$  production target of 800,000 lbs pa.
- Attractive projected economics based on a forecast US $90/Ib U_3O_8$  realised sales price.
- Pre-tax NPV<sub>8</sub> of ~US110M (~A174M) as a CPP or ~US118M (~A187M) as a Satellite.

	CPP Project NPV and IRR Se	ensitivities to Uranium Pri	ce
US\$/Ib U <sub>3</sub> O <sub>8</sub>	~Net Cash Flow (US\$м)	~Pre-Tax NPV <sub>8</sub> (US\$м)	~Pre-Tax IRR
\$80	\$119	\$75	41%
\$85	\$143	\$92	47%
\$90	\$167	\$110	52%
\$95	\$191	\$127	58%

• Pre-tax internal rate of return (**IRR**) of 52% as a CPP or 66% as a Satellite Operation.

- Low initial CAPEX forecast of ~US\$67M as a CPP (~US\$43M pre-production) or ~US\$57M (~US\$32M pre-production) as a Satellite Operation.
- Average CPP cash operating costs of ~US32/lb U<sub>3</sub>O<sub>8</sub> (~A50/lb U<sub>3</sub>O<sub>8</sub>) and AISC of ~US41/lb U<sub>3</sub>O<sub>8</sub> (~A65/lb U<sub>3</sub>O<sub>8</sub>).
- Project Payback occurs in approximately 2.5 years from the start of production and the NPV breakeven uranium price over the economic evaluation period is ~US\$60/lb.
- Forecast net cashflow (post capex, pre-tax) for CPP of ~US\$167M (~A\$265M).
- Project economics benefit from proximity to infrastructure, workforce, low reagent costs, a shallow deposit and good permeability of host sands.
- Potential to extend the 7-year mine life by converting Exploration Target into Mineral Resources in the mine plan with further drilling. The Exploration Target Range for Lo Herma is 5.6 to 7.1 million tonnes at a grade range of 500 ppm to 700 ppm eU<sub>3</sub>O<sub>8</sub>.

No Exploration Target Range is included in the Scoping Study. The potential quantity and grade of an exploration target is conceptual in nature, there has been insufficient exploration to determine a mineral resource and there is no certainty that further exploration work will result in the determination of mineral resources or that the production target itself will be realised.



## Next Steps and Additional Information

- Groundwater pumping tests will be necessary to better understand the hydrology underlying the project, including the degree of hydraulic separation within the Formations and between sandstone units, hydraulic gradient, direction and rate of groundwater flow, horizontal conductivity, transmissivity, as well as storativity values.
- Additional metallurgical testing of core samples will be necessary to better define reaction kinetics and optimal lixiviant parameters.
- Continued exploration drilling can improve and upgrade the Mineral Resource Estimate and allow for improved accuracy in wellfield designs.
- Additional studies are required to consider power and water supply, logistics and equipment supply sources, product transport route, and further environmental and amenity considerations to be included in a proposed full feasibility assessment.
- Ongoing engagement with all stakeholders to obtain further understanding of their concerns, questions and issues of a future project and development of mutual solutions.
- A realistic estimate of the continued work and time to advance the Project to possible construction and production is included below. It is estimated that earliest construction start would be during 2028, with commissioning production during 2029.

**GTI's Executive Director & CEO Bruce Lane stated:** *"We are very pleased to present the results of the Lo Herma Project Scoping Study. This Study represents an initial estimate for a project based on the Lo Herma deposit, producing 800,000lbs p.a.*  $U_3O_8$  for supply into the increasing uranium demand supporting the US nuclear power industry.

The Project's "base case" contemplates a central processing facility with an estimated initial 7year mine life with potential to increase the mine life and grow the project's value through further drilling.

The capital costs to establish an initial project, either with the preferred option of a central processing plant or as a satellite facility, are quite low due to expected simple metallurgy and Lo Herma's favourable location near critical infrastructure, a locally based workforce (no FIFO or camp) and experienced mining services and business support centres.

We believe that operating cost estimates are in line with similar nearby low cost ISR operations in the region. GTI recognises that the project would be analogous to nearby existing ISR uranium operations in Wyoming's Southern Powder River basin, a globally recognised, experienced and supportive low-cost uranium mining jurisdiction".



### **EXECUTIVE SUMMARY**

The Lo Herma Project Scoping Study (**Scoping Study** or **Study**) has been led by independent engineering consultants BRS Engineering Inc. based on the Lo Herma Project Mineral Resource Estimate (**MRE**) from 16 December 2024. This Scoping Study has been based on development of an initial 1Mlb p.a. capacity processing facility with an annual planned production target of 800,000 lbs and a mine life to 7 years based on the currently identified Mineral Resources within the Lo Herma Project.

The Study preferred base case focuses on the construction of an Insitu Recovery (**ISR**) mining operation with a Central Processing Plant (**CPP**) to process uranium ore and produce uranium oxide ( $U_3O_8$ ). The Study also contemplates a lower capital cost satellite operation (**Satellite** or **Satellite Operation**) alternative which would produce a uranium pregnant liquor for final processing into  $U_3O_8$  at an as yet uncontracted third-party site.

The Study confirms the Lo Herma Project has potential to be a low-cost producer of  $U_3O_8$  with the ability to deliver robust economic results through the cycle.

Capital expenditure for the construction of the initial wellfield and CPP facilities is estimated to be ~US\$67M, which pays back during the 3<sup>rd</sup> year of operation, offering low capital intensity which is highly supportive of the development of this project.

A summary of the key assumptions including production metrics and financial outcomes is set out in **Tables 1 and 2** below and shows the robust financial nature of the Lo Herma Project driven by its excellent operating cost efficiency and low capital expenditure.

Key Physical Parameters	Unit	Total/LOM
Operations		
Construction Period	months	~18
Annual Production Rate (Recovered @ 80%)	lbs U₃O <sub>8</sub> pa	800,000
Initial Production Life	years	7
Processing		
Average Grade of Mineral Resource	ppm U <sub>3</sub> O <sub>8</sub>	630
Estimated PLS Grade from Wellfield	ppm U <sub>3</sub> O <sub>8</sub>	50
Forecast Overall Uranium Recovery	%	80
Output		
Total U <sub>3</sub> O <sub>8</sub> Production (Production Target)	Mlbs U <sub>3</sub> O <sub>8</sub>	5.98

#### TABLE 1: PRODUCTION AND FINANCIAL ASSUMPTIONS FOR THE LO HERMA PROJECT



#### TABLE 2: KEY FINANCIAL METRICS OF THE LO HERMA PROJECT CPP

Metrics	Unit	СРР
Price Inputs		
LOM Average Uranium Price	US\$/lb U <sub>3</sub> O <sub>8</sub>	90
A\$ to US\$ Exchange Rate Assumption	US\$	0.63
Valuation, Indicative Returns and Ratios		
NPV <sub>8</sub> (pre-tax)	US\$M	110
NPV <sub>8</sub> (pre-tax)	A\$M	174
IRR (pre-tax)	%	52
Capex Including Initial Wellfield	US\$M	67
Capex Including Initial Wellfield	A\$M	107
Payback Period (pre-tax from first production)	Years	2.5
Cash Flow Summary		
Sales Revenue (gross)	US\$M	431
Direct Processing Opex Excl Sustaining Capex	US\$M	83
Other Direct Costs (reclamation, taxes, land payments)	US\$M	46
Cash Operating Costs	US\$M	129
Sustaining Capex (incl. ongoing wellfield development)	US\$M	73
All In Sustaining Costs (AISC)	US\$M	196
Pre-production Capex	US\$M	43
Pre-production Capex	A\$M	68
Net Cash Flow (pre-tax)	US\$M	167
Net Cash Flow (pre-tax)	A\$M	265
Net Cash Flow (pre-tax)	US\$/Ib U <sub>3</sub> O <sub>8</sub>	35
Net Cash Flow (pre-tax)	A\$/Ib U₃O <sub>8</sub>	55
Unit Operating Costs		
Cash Operating Costs	US\$/Ib U <sub>3</sub> O <sub>8</sub>	32
AISC	US\$/Ib U <sub>3</sub> O <sub>8</sub>	41



## **Project Location**

The Project is located in the Southern Powder River Basin in Converse County, Wyoming, United States of America; approximately 26 miles (~40 kilometres) northeast of Casper, Wyoming and approximately 12 miles (19 kilometres) north of the regional town of Glenrock (**Figures 1 and 2**). Lo Herma is located on unpatented mining lode claims and State of Wyoming Mineral Lease lands (**Tenements**) (**Figure 3**). The Project is located in close proximity to several permitted and operating ISR mining facilities (**Figure 1**).



FIGURE 1: LO HERMA PROJECT LOCATION AND WYOMING REGIONAL ISR PROJECTS



#### **FIGURE 2: LO HERMA PROJECT LOCATION**



## **Regional and Local Infrastructure**

The closest regional airport is located in Casper, with daily commercial flight services to Salt Lake City, Utah and Denver, Colorado. Casper Wyoming has a population of around 60,000 and is a significant service centre for the region's highly developed mining and oil and gas industries.

The Lo Herma Project area can be accessed via 55 Ranch Road. After 16 miles, 55 Ranch Road turns south onto WY-95. 5 miles south, WY-95 connects to the city of Glenrock (**Figure 2**). Existing power transmission lines are available nearby to several locations within the Project area due to the existing oil, gas, and transmission infrastructure.



## Local Ecology and Climate

The site features rolling to hilly terrain with an average elevation of 5,600 feet. The primary habitat consists of mixed prairie grassland and sagebrush steppe. Pine ridge, characterized by woodland hills and rocky outcrops, runs north-south through the area. The site is currently used mainly for livestock grazing and hunting.

The climate at the Lo Herma Project is semi-arid, with an average annual precipitation of about 12 inches. Temperatures peak in July with a high of  $89^{\circ}F$  ( $31.7^{\circ}C$ ) and a low of  $56^{\circ}F$  ( $13.3^{\circ}C$ ). Temperatures are lowest in January with a high of  $37^{\circ}F$  ( $2.8^{\circ}C$ ) and a low of  $16^{\circ}F$  ( $-8.9^{\circ}C$ ). Oil field operations in the vicinity operate year-round. Site access is good, and site operations are expected to continue year-round with some activities limited in the winter months.

## **Tenement Status**

The Lo Herma Project is located on unpatented mining lode claims and State of Wyoming Mineral Lease lands (**Tenements**) in Converse County, Wyoming (**Figure 3**). The Lo Herma mining lode claims cover 11,244 acres with 603 total claims. The mining claims remain valid so long as annual assessment and recordation payments of US\$200 per claim are made. The State of Wyoming Mineral Leases consists of two (2) uranium lease agreements covering 1.5 sections of land totalling 944 acres. The mineral leases will remain in place, so long as annual lease payments of US\$1 per acre are made.

In addition to the BLM and State of Wyoming surface managed areas, 3 private ranches hold surface grazing rights across portions of the project area. Agreements are in place to facilitate access and exploration and to compensate the private landowners for surface damages resulting from exploration activities on the private surface estate.

Oil and gas wells are scattered throughout the property which include improved dirt access roads for well site access. Transmission pipelines and associated facilities are present across the Tenements as well. Neighbouring the property to the east is a wind power generating facility owned by PacificCorp. The primary use by the private landowners is cattle and sheep grazing as well as seasonal hunting activities.



#### **FIGURE 3: TENEMENT STATUS**

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BLM	
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Gli	energy.



## Geology

The Lo Herma prospect is situated on the southern end of the west flank of the Powder River Basin, a regional asymmetric synclinal basin hosting a sedimentary rock sequence of about 15,000 feet at its deepest point. The basin is bounded by the Bighorn Mountains on the west and the Black Hills to the east, with the Casper Arch, Laramie Mountains, and Hartville Uplift bounding the southern margin. Along the edges of the basin, progressively older sedimentary units outcrop at the surface as you move away from the synclinal axis of the basin.



FIGURE 4: GEOLOGIC MAP, ADAPTED FROM WSGS BILL QUADRANGLE MAP (GREGORY 2007)

The Lo Herma Project is located in and around the contact of the Eocene Wasatch Formation and the Paleocene Fort Union Formation. In this area, the corresponding fluvial and paludal depositional settings of the two formations are similar, and the unconformable contact is poorly defined. Both formations consist of sedimentary sequences of sandstones, siltstones, claystones, and coal – creating a favourable geologic environment for uranium roll-front deposits within the permeable sandstone units.

The gently north-east dipping host sandstones of the Lo Herma Project lie stratigraphically below the prominent Badger and School House coal seams, and likely represent some of the lowest Wasatch sandstones and the uppermost Fort Union sandstones. The lower sandstone units of the Fort Union formation represent an underexplored potential for additional uranium mineralisation on the property. A regional-scale cross-section, adapted from the geologic map, depicts the project's geological setting and is included below (**Figure 5**).



#### FIGURE 5: REGIONAL GEOLOGIC CROSS SECTION (REFER FIGURE 4)



Uranium mineralization at the Lo Herma project manifests as roll front-type deposits within sandstone horizons. These roll fronts develop through a geochemical process in which oxidizing groundwater dissolves uranium from a source rock, carries it in low concentrations through the host formations, and deposits it at an oxidation/reduction (redox) interface. Sustained geochemical conditions can lead to significant uranium accumulation at these interfaces, with deposits varying widely in size, shape, and volume. Individual roll front trends may extend sinuously for several miles and often comprise multiple vertically stacked roll fronts within one or more sand units.

The mineralized sand horizons at Lo Herma are designated A, B, C, and D, following the naming convention established by uranium explorers in the 1970s, with "A" representing the stratigraphically lowest sand and "D" the uppermost. In some project areas, these sands may split into subunits or merge back into their primary groupings. Additional uranium mineralization is also present in the deeper TFL Sand and the unnamed Lower Sands of the Fort Union Formation's Tongue River Member (**Figure 6**).



#### **FIGURE 6: STRATIGRAPHIC SECTION**





## Mineral Resource (MRE)

GTI's original MRE for Lo Herma (advised to ASX on 5 July 2023) used data from up to 845 digitised original historical drill logs to construct the resource modelling. GTI conducted a 26-hole exploration drill program in the winter of 2023 followed by a 73-hole resource development drill program in the summer of 2024<sup>1</sup>. Core samples collected during this campaign underwent geochemical assays and leach testing, with preliminary results supporting a disequilibrium factor (DEF) of 1 for mineral reserve calculations and confirming the resource's suitability for alkaline insitu leach processes.

Results from the recent drilling campaigns were used to better define existing resource areas, expand resources into new areas, and upgrade the resource classification of portions of the deposits. A range of criteria has been considered in determining resource classification including data quality, geologic continuity, and drill hole spacing, which is discussed in Appendix 1, JORC code Table 1 report, advised to ASX on 16 December 2024.

The updated Lo Herma resource model resulted in a 50% increase in total mineral resource pounds of uranium & a subsequent conversion of 32% of the total resource pounds into the indicated classification.

The current mineral resource estimate is as follows:

#### TABLE 3: MINERAL RESOURCE ESTIMATE (MRE)

Mineral Resource Classification	Tons (Millions)	Average Grade (ppm eU₃Oଃ)	Contained U <sub>3</sub> O <sub>8</sub> (Pounds, Millions)
Indicated	1.91	660	2.78
Inferred	4.3	610	5.79
Lo Herma MRE Total	6.21	630	8.57

The MRE has been calculated by applying a cutoff grade of 200 ppm  $eU_3O_8$  and a grade thickness (GT) cutoff of 0.2 GT. The cut-off parameters used are typical of ISR uranium industry standards within the Powder River Basin and the Wyoming ISR industry at large.

The cut-off criteria used in the estimation is applicable to mining by ISR methods or conventional open pit mining.

In order to be amenable to ISR mining methods, all resources must occur below the static water table and the permeability and transmissivity of the host deposit must allow for adequate flow and control of lixiviant.

For the purposes of this scoping study, only the resource areas with hydrogeologic data supporting the presence of groundwater saturation are considered in the ISR mining production schedule.



<sup>&</sup>lt;sup>1</sup> Exploration drilling results are contained in ASX releases from 20/12/2023, 31/07/24, 12/09/2024 & 19/09/2024.



## FIGURE 7: CROSS SECTION OF MINERALISED DRILL HOLE INTERCEPTS AT LO HERMA

In addition to expanding the initial 2023 resource areas, a significant new resource area was added on the east end of the property (see **Figure 8, Detail 3**). GTI established claim over the approximately 566-acre area in December of 2023 (advised to ASX on 20 December 2023), targeting exploration potential in the deeper sands of the Fort Union Formation.

The mineralised sand horizons at Lo Herma are labelled by established convention from the original exploration effort in the 1970's. The sands of interest from stratigraphic high to low are the D, C, B, A, and TFL sand horizons (**Figure 7**). In certain portions of the project the sands may split into smaller subunits and merge back into consolidated sand units. For the purposes of resource modelling, sub sands were composited into the main horizons due to stratigraphic proximity and geologic relationships.

The addition of the east claim area contributed nearly 2Mlbs  $eU_3O_8$  to the increased resources using a combination of historical drill logs and new drill holes. The changes in total resource calculation by mineralised sand horizon is summarised below in **Table 4**:

MINERALISE		2023 MRE			CURRENT M	RE
D SAND HORIZON	TONNES (Millions)	AVERAGE GRADE (ppm eU <sub>3</sub> O <sub>6</sub> )	CONTAINED eU <sub>3</sub> O <sub>8</sub> (Million Pounds)	TONNES (Millions)	AVERAGE GRADE (ppm eU <sub>3</sub> O <sub>8</sub> )	CONTAINED eU <sub>3</sub> O <sub>8</sub> (Million Pounds)
D SAND	0.21	640	0.29	0.21	640	0.29
C SAND	2.84	630	3.95	3.19	640	4.53
B SAND	1.06	620	1.43	1.33	590	1.72
A SAND	0.02	660	0.03	.02	660	0.03
TFL SAND*				1.46	620	1.99
TOTAL	4.12	630	5.71	6.21	630	8.57

#### TABLE 4: UPDATED LO HERMA MINERAL RESOURCE ESTIMATE BY MINERALISED HORIZON

\* No resources were defined for the TFL sand in the 2023 version of the MRE.





#### FIGURE 8: LO HERMA PROJECT COLLAR LOCATIONS AND MINERAL RESOURCE AREAS



## Exploration Target (ETR)

The initial Exploration Target Range (ETR) for Lo Herma was advised to ASX on 5 April 2023. An additional data package containing drill maps with geologically interpreted redox trends was subsequently secured by GTI as advised to ASX on 27 June 2023. The additional redox trend interpretations from this data package allowed for an update of the previously reported ETR to be reported on 5 July 2024.



#### FIGURE 9: REDOX TRENDS USED IN DEVELOPING EXPLORATION TARGET RANGE (ETR)

Results of exploration drilling and additional mineral land tenement staking by GTI during 2024 led to an update to the ETR released in conjunction with the updated MRE on 16 December 2024. The ETR calculated was bv mapping estimated redox trends by sand horizon across the Lo Herma area, outside of the defined MRE areas. High & low range mineralisation parameters were defined based on average values extracted from the MRE and applied to the theoretical redox trend lengths within each sand horizon.

The ETR for the Lo Herma project is 5.6 to 7.1 million tonnes at a grade range of 500 ppm to 700 ppm  $U_3O_8$ . The Scoping Study Production Target does not include any ETR mineralisation.

The potential quantity and grade of Exploration Targets is conceptual in nature & there has been insufficient exploration to estimate a JORCcompliant MRE. It is uncertain if further exploration will result in the estimation of a MRE in the defined exploration target areas.

## Hydrogeology

Drilling data collected over the past two years within the Lo Herma Project area, combined with lithologic interpretations of historical logs, indicate that the claystone and mudstone layers above and below the mineralized sandstone aquifers are continuous and sufficiently thick to serve as effective aquitards. These layers are critical for confining the wellfield and preventing vertical lixiviant migration.



As reported to ASX on 5 March 2025, four (4) drill holes were drilled, logged and completed as monitoring wells for collection of hydrogeologic data. Each well was screened across the mineralized sands as defined by the geophysical logging and completed with nominal 5-inch well casing, large enough to support future use in a hydrogeologic study that would include rigorous pumping tests.

Measured water levels in the monitoring wells demonstrated the mineralised sands, within these portions of the project, to be sufficiently submerged within the groundwater aquifer to support UISR mining methods. The three wells in the central part of the project showed the water table elevation to range from 59.5 - 220.6 feet above the mineralised intercepts within those drill holes. The one well in the deeper portion of the project found the water table elevation to be 1149.3 - 1178.3 feet above the mineralised intercepts. The locations of the water wells used for data collection are shown in context of the mineral resources and planned mine units in **Figure 10**.

More rigorous hydrological testing is planned to coincide with additional future drilling. This will include pumping tests of the completed wells and installation of additional monitoring wells.

BRS engaged Engineering Analytics (EA) to perform laboratory-scale vertical hydraulic conductivity tests on drill core recovered from the Lo Herma Uranium Project. EA is a certified American Society of Testing and Materials (ASTM) laboratory and adhered to the ATSM D5084 method for Flexible Wall Permeability testing.

These methods are utilized to determine the rate at which a fluid will flow through a porous media, with test apparatus replicating pressures at depth within an aquifer. The results of the hydraulic test work on the Lo Herma drill core are shown in **Table 5**.

Test results were reported as hydraulic conductivity. The average hydraulic conductivity across all tests was 5.54E-07, with all test results falling in the expected range for sandstone and confirms sufficient permeability for ISR mining methods.

	Lo Herma C	Core Permeability Test Re	esults
Sample ID	Hydraulic Conductivity (cm/sec)	Hydraulic Conductivity (m/sec)	Typical Hydraulic Conductivity for Sandstone (m/sec)
LH-001-1	3.8 E-05	3.80E-07	3.0E-10 to 6.0E-6
LH-003-1	2.1 E-05	2.10E-07	3.0E-10 to 6.0E-6
LH-050-1	7.5 E-05	7.50E-07	3.0E-10 to 6.0E-6
LH-050-2	8.3 E-05	8.30E-07	3.0E-10 to 6.0E-6
LH-067-1	6.0 E-05	6.00E-07	3.0E-10 to 6.0E-6
Average		5.54E-07	

#### TABLE 5. LO HERMA HYDRAULIC CONDUCTIVITY TEST RESULTS





#### FIGURE 10: RESOURCE AREAS, MONITOR WELLS, AND PROPOSED MINE UNITS



Further laboratory permeability tests on core samples from the confining layers are recommended as a next step in the project's development. Additionally, ongoing hydrogeological studies will help guide the design and parameters of ISR operations across all mine units.

Static water level measurements from monitoring wells in Mine Unit 1 and Mine Unit 2 confirm adequate hydraulic head for ISR techniques. In Mine Unit 1, wells recorded an average water elevation of 5,361 feet, positioning the water table 59.5 to 220.6 feet above the mineralized zone. In Mine Unit 2, the depth to water was measured at 5,329 feet, with the water table ranging from 1,149.3 to 1,178.3 feet above the mineralization. These conditions indicate sufficient groundwater head pressure to support ISR operations.

For Mine Unit 3, precise water table data are currently unavailable. However, the mineralized intercepts are located within the B Sand, which lies below the average water level depth recorded in the overlying C Sand monitoring wells of Mine Unit 1. This suggests that Mine Unit 3 is likely saturated and suitable for ISR, pending further verification.

Planned pump tests will provide additional hydrological insights, including the degree of hydraulic isolation within and between aquifer units, transmissivity, and storativity values of the aquifers. These data will refine the understanding of the site's suitability for ISR. At present, the working assumption (based on regional geologic comparisons with nearby projects in the Powder River Basin, such as those near Lo Herma) is that the hydrological conditions are conducive to solution mining. To be suitable for in-situ recovery (ISR) mining, mineralization must be fully saturated with groundwater and permeable to water flow. For this study, resources situated at least 50 feet below the static water table are deemed saturated.

## Metallurgy

Leach amenability studies were conducted to demonstrate that uranium mineralisation from Lo Herma is capable of being solubilized using conventional alkaline in-situ recovery (ISR) chemistry. The studies evaluated uranium extraction rates and efficiencies from Lo Herma Project mineralisation samples.

BRS engaged Wyoming based specialist consultants R And D Enterprises Inc. (RDE) to perform agitation leach studies on core recovered from the Lo Herma Project. RDE worked in conjunction with Pace Analytical (PA) to perform the required testwork, and analysis of solutions and residual solids. Core composites, prepared by BRS, were submitted to PA for bicarbonate-based agitation leach testing. The testing protocol utilised reagent water fortified with 2g/L sodium bicarbonate and 1g/L hydrogen peroxide to generate the leach lixiviate. The lixiviants used were consistent with those commonly used by Southern Powder River Basin Wyoming ISR producers.

Two core splits were prepared and leached concurrently to ensure the agitation leach test procedure, and the requested analytical testing was consistent. The standard operating procedure for agitation leach testing is typically based on 30 pore volumes (PV) for resource recovery. After each ~24-hour sample agitation, fresh lixiviant representing 5 - PVs each, were exchanged.

RDE issued a report on January 23, 2025, summarizing the results of two agitated leaching tests that were conducted jointly with PA. RDE is in Casper, WY, and PA has facilities in Sheridan and Gillette, in addition to scores of affiliates throughout the United States.

Although specific responsibilities were not stated, RDE typically performs sample preparation and laboratory-scale ISR simulation tests, while PA analyses pulverized core samples and the solid residue and solutions resulting from leaching tests.



The standard ISR simulation test is conducted in a stainless-steel bottle that can be sealed and pressurized to estimated average hydrostatic pressure in the submerged mineralized zone. The bottle is charged with a weighed quantity of dry sample that has been split from a blended composite of pulverized drill core.

An amount of leaching solution (lixiviant) equal to five estimated pore volumes (PV) in the formation (millilitres per kilogram of solids), and containing sodium bicarbonate and hydrogen peroxide, is added to the sample and the bottle is closed and revolved around its long axis on a set of mechanized rollers [McNulty 2019]. After a pre-determined time interval, the bottle is opened, emptied, the slurry filtered, the filtrate saved and analysed, and the process is repeated with five more PVs of lixiviant. A standard test comprises five cycles at 5 PVs apiece. The filtrate volume from each stage is measured.

Hydrogen peroxide oxidizes insoluble tetravalent uranium minerals to soluble hexavalent uranium, and carbonate ion is added to complex the dissolved uranium. An equilibrium between carbonate and bicarbonate ensures sufficient residual bicarbonate ion to prevent precipitation of uranium if the solution becomes too alkaline and creates hydroxyl ion.

The RDE test protocol involved testing 600 grams of dry composite, and the lixiviant contained 1.0 gram per liter ("gpl") sodium bicarbonate, NaHCO<sub>3</sub> and 1.0 gpl hydrogen peroxide,  $H_2O_2$ . Two tests were run on samples of the core composite, and the head assay was 400 mg/kg (ppm or 0.04%)  $U_3O_8$ . The leached residues (tails) assayed 100 and 120 mg/kg  $U_3O_8$  and resulted in uranium extractions of 79.9% and 74.8%, respectively.

The curves of residue assay versus PV were trending downward at an approximate average rate of 1.65 mg/kg per PV. This is a typical long-term extraction decay rate and indicates that a wellfield extraction of 75-80 percent is a reasonable expectation. Wellfield uranium extraction is essentially identical to uranium recovery to  $U_3O_8$ , although recovery may be slightly less due to minor uranium losses into solid and liquid disposal streams. Bottle roll tests are reliable indicators of ultimate uranium recovery, but they represent an averaging of several variables:

- Although uranium mineralogy for Lo Herma has not been characterized, it is common among nearby active ISR operating properties for the dominant mineral to be *coffinite*, a secondary uranium silicate, with attendant *uraninite*, the primary dioxide, and *brannerite*, a primary uranium-titanium oxide. Although uraninite oxidizes readily and dissolves quickly, coffinite and brannerite generally are kinetically hindered, dissolving more slowly. Consequently, coffinite and brannerite may not dissolve completely during a bottle roll test.
- However, a bottle roll test is conducted on finely-ground samples with essentially complete liberation of quartz grains from the uranium-mineralized inter-granular cement. Consequently, all uranium mineralization is exposed to the lixiviant. This is not the case in a wellfield pattern because lixiviant contact is dependent on formation porosity and "sweep efficiency." Roll front deposits may have clay lenses that obstruct uniform flow of injected lixiviant. Also, the flow lines between injection wells and production (extraction) wells tend to leave pattern corners that are contacted slowly, if at all.
- The sample grades tested by RDE were lower than the MRE grade of 630 ppm eU<sub>3</sub>O<sub>8</sub> and true grade range of 500-700 ppm U<sub>3</sub>O<sub>8</sub>. Given the average tail assay of 110 ppm, it is reasonable to expect an extraction range of 78-84%, somewhat higher than the 77.5% average of the tests. However, this difference is theoretical, and two tests do not establish statistical certainty.



## **Mining Method**

The Project aims to construct a central processing plant (**CPP**) and wellfields utilizing the ISR mining method, also known as in-situ leach or solution mining. ISR is a cost-effective and low-disturbance technique widely used for extracting uranium from roll-front deposits hosted in permeable sand or sandstone formations. These deposits must be confined above and below by impermeable strata and located below the water table.

ISR is widely considered to be an environmentally acceptable and efficient mining method for such geological settings. In the ISR process, injection wells are drilled into the mineralized sands to deliver a lixiviant (native groundwater fortified with an oxidant, typically oxygen or hydrogen peroxide, and sometimes a complexing agent like bicarbonate) into the ore body. The oxidant converts insoluble uranium compounds into a soluble form, while the complexing agent enhances dissolution. The resulting pregnant solution, carrying the mobilized uranium, is pumped to the surface through production wells (also called extraction wells).

At the CPP, the uranium is extracted from the solution and processed into  $U_3O_8$  (uranium oxide). The depleted (barren) lixiviant is then replenished with chemicals and recirculated to the wellfield. To ensure containment and prevent the lixiviant from spreading beyond the mining area, production wells operate at a slightly higher pumping rate than injection wells, creating an inward hydraulic gradient.

The wellfield employs a standard five-spot pattern, where injection wells are positioned at the corners of a square with 100-foot spacing, and a production well is centered within, resulting in an injection-to-production well distance of approximately 70 feet. Each injection well typically supports multiple production wells. Header houses manage multiple wellfield patterns, serving as distribution hubs for lixiviant injection and collection points for production flow. Each header house oversees around 90 wells (approximately 60 injection wells and 30 production wells) and targets a flow rate of 600 gallons per minute (**gpm**) with an anticipated average head grade of 50 parts per million (**ppm**)  $U_3O_8$ . To maintain the desired production rate, 6 to 9 header houses will operate simultaneously. A significant advantage of ISR mining is its reduced environmental footprint compared to conventional mining. By leaving the ore in the ground, ISR eliminates the need for large-scale excavation, avoiding the production of waste rock and tailings. Surface disturbance is limited to the wellfield infrastructure and the CPP, enhancing its environmental compatibility.

	Mine Unit 1	Mine Unit 2	Mine Unit 3
Average Well Depth (ft)	500	1350	350
Indicated Acreage	30	13	15
Inferred Acreage	59	29	28
Injection Wells	658	341	355
Recovery Wells	391	195	202
Header Houses	12	6	7
Monitoring Wells	217	103	105

#### **TABLE 6: WELLFIELD DESIGN PARAMETERS**



Five-spot wellfield patterns were optimised to overlay the indicated resource areas in each mine unit, allowing for the calculation of an average production rate per pattern. The same design parameters were then applied to the inferred resources to estimate the number of wells needed for those areas.

The project is divided into three geographically separated mine units. Production will begin in Mine Unit 1, followed by Mine Unit 2, and finally Mine Unit 3. Mine Unit 1 contains a composite wellfield area of 89 acres at an average resource depth of 500 feet. Mine unit 2 covers 42 acres with an average resource depth of 1350 feet. Mine unit 3 spans 43 acres with an average resource depth of 350 feet. Across the three mine units, there are 1354 injection wells and 788 recovery wells for a total of 2,142 wells participating in the production pattern. A total of 425 monitoring wells are currently planned.

Pipelines will transport wellfield solutions to and from the central processing facility. High density polyethylene (HDPE), PVC, stainless steel, or equivalent piping is used in the wellfields and will be designed and selected to meet operational requirements. Flow and pressure are monitored and controlled from the header houses. The main lines from the plant to the wellfields are buried for freeze protection and to minimize pipe movement.

Monitoring wells will be installed in the production area ahead of the start of production to establish a baseline for groundwater restoration. An initial wellfield will be drilled as the processing plant is being constructed with the capacity to reach the production target. When production begins, header houses will be brought online gradually in a ramp-up phase until the production target is met. The head grade of produced lixiviant will be monitored. Header houses will be added and removed from the system in order to maintain the target production flowrate and head grade. The wellfield will be developed concurrently with production in the timeline.

## **Mining Schedule and Production Target**

The mining process unfolds in stages: development, production and groundwater restoration, and surface reclamation. Initial construction tasks include development drilling, wellfield setup, installation of preliminary monitoring wells, and construction of the central processing plant. The production phase includes a ramp-up period over two years. Restoration and reclamation efforts will begin shortly after production concludes in each mining unit. Final decommissioning will align with the reclamation of the last production zone. The timeline provided supports the accompanying economic analysis, though the actual start of construction will hinge on various market conditions.

The preferred base case is a standalone project with a CPP. An alternative discussed herein would be a Satellite Operation which would ship loaded resin to a separate facility for final drying and packaging as  $U_3O_8$ . The CPP is designed with a capacity to output roughly one million pounds of  $U_3O_8$  per year. The production schedule estimates realized production at 800,000 pounds per year to maintain an achievable and realistic mining schedule. The Life of Mine production target is 5.98Mlbs  $U_3O_8$  based on the current mineral resource areas with supporting hydrogeologic data. The production schedule shown in **Figure 11** shows the approximate pounds of uranium by mine units (Wellfields). Mine unit 1 is the best-defined and lowest cost unit. The payback period for initial capital investment occurs in approximately 2.5 years from the start of production with cumulative production and is estimated to contain an estimated 2.5 million pounds of which 836,000 pounds is classified as indicated.

The estimated mineral resources underpinning the production target have been prepared by the CP in accordance with the requirements in Appendix 5A (JORC Code) and were released on ASX on 16 December 2024.



Of the JORC compliant Mineral Resource scheduled for ISR extraction in the Scoping Study production plan, approximately 32% is categorized as an indicated mineral resource and 68% is inferred. There is a low level of geological confidence associated with Inferred Mineral Resources and there is no certainty that further exploration work will result in the determination of indicated mineral resources or that the production target itself will be realized. The stated production target is based on the company's current expectations of future results or events and should not be solely relied upon by investors when making investment decisions. Further evaluation work and appropriate studies are required to establish sufficient confidence that this target will be met.

An 'Inferred Mineral Resource' is that part of a Mineral Resource for which quantity and grade or quality can be estimated on the basis of geological evidence and limited sampling and reasonably assumed, but not verified, geological and grade continuity. The CP acknowledges that inferred resources may be upgraded to indicated or measured resources with further exploration.

The CP notes that the style of mineralisation and the experience to date in converting Inferred Mineral Resources to the Indicated category provides a reasonable basis for inclusion.

### TABLE 7: PROPORTION OF INDICATED TO INFERRED POUNDS MINED

Project Year	1	2	3	4	5	6	7	Total
Lbs U <sub>3</sub> O <sub>8</sub> mined split Indicated/Inferred	300 / 0	536 / 264	250 / 750	250 / 750	106 / 894	250 / 750	267 / 614	5,981



### FIGURE 11: LO HERMA MINING AND PRODUCTION SCHEDULE

Note: "Pounds Mined" refers to in-situ Pounds under the ISR mining pattern according to the MRE. "Pounds Produced" refers to realized production of salable product after application of wellfield recovery factors.





#### FIGURE 12: WELLFIELD DEVELOPMENT SCHEDULE, PRODUCTION YEAR NOTED ON FIGURE

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## Processing

The planned process flowsheet for a CPP is shown below in **Figure 13**. The production areas for drying and packaging into drums (shaded) would not be needed for a Satellite Operation as this process would be completed at a separate facility. The alternative Satellite Operation plant design includes provisions for loading and unloading of resin and transport of the resin for final finishing.



## FIGURE 13: LO HERMA CPP SIMPLIFIED PROCESS FLOW SHEET

The planned process is to deliver well field pregnant leach liquor (PLS) to ion exchange (IX) resin columns, load the resin with uranyl carbonate, elute the resin with aqueous sodium chloride, precipitate  $U_3O_8$  from the rich eluate, reconstitute the barren eluate with addition of sodium bicarbonate (adjusting pH if needed with carbon dioxide), and re-inject into wells.

The rich eluate is de-carbonated by addition of hydrochloric acid, and  $U_3O_8$  is recovered from the rich eluate by adjusting pH with sodium hydroxide and precipitating with hydrogen peroxide. The precipitate is partially dewatered in a high-density thickener from which the underflow is pumped to a filter press. The filter press is unloaded periodically, and the filter cake is fed into an electrically heated rotary dryer. Dried  $U_3O_8$  is loaded into 55-gallon drums. The cost estimate assumes that the drum filling machine will automatically weigh contents and attach drum lids. A storage and loading dock will accommodate empty and full drums. To maintain hydraulic control of the well field, there will be a bleed of roughly 1.0 percent of the injection flowrate, or 50 gpm. The plant will use approximately 20 gpm of additional water to account for "housekeeping", changeroom



showers, and evaporation. While the preferred alternative is a stand-alone CPP facility, under the Satellite Operation scenario, instead of building facilities to dry and load  $U_3O_8$  for shipment, loaded resin would be transported to a separate facility for elution. The wellfield and PLS treatment plant will produce loaded IX resin that will be transferred into approved containers for transportation by truck to a central elution facility for precipitation, drying, and drumming of  $U_3O_8$ . The costs for a Satellite facility were approximated by adjusting the CAPEX by removing the drying and packaging costs and adjusting the OPEX estimates by reducing onsite packaging costs and adding offsite facility costs and a recovery allowance.

In both cases, a small bleed stream from the resin loading tanks will be treated by reverse osmosis to produce a brine filter cake for solid waste disposal and a permeate that will be treated for radium removal and injected into a deep disposal well. The capital cost estimate assumes that an abandoned hydrocarbon well will be rehabilitated for use as the disposal well.

## Mine Units and Central Processing Plant Locations

The configuration of the project's mining units and central processing plant are shown in **Figure 14** below. The CPP is located between Mine Units 1 and 2 to facilitate shorter lixiviant trunk lines, particularly in the earlier stages of the project. 10 acres are blocked out for the CPP, but the footprint for the facility should only be around 5 acres. The location has been chosen on public land, near to roads and power lines, and at a commensurate elevation to the Mine Units in order to reduce the need for booster pump stations. Trunk line layouts to transport lixiviant between the Mine Units and the CPP are conceptual and will be finalized during a later stage of design, as will the potential need for booster pump stations. Trunk lines are typically 8-12" HDPE and will follow access roads wherever possible. Based on the conceptual layout, the trunk line from Mine Unit 1 (MU1) to the CPP will be approximately 6,850 feet; the trunk line from Mine Unit 2 (MU2) to the CPP will be approximately 10,700 feet; and the trunk line from Mine Unit 3 to the CPP will be approximately 28,600 feet. Alternatively, the trunk line from Mine Unit 3 (MU3) may be routed through the existing Mine Unit 2 trunk line, which would only require an additional 17,900-foot line. However, future designs taking more surface factors into consideration may deviate from the conceptual plans shown here (**Figure 14**).

## **Alternative Satellite Operation Scenario**

An alternative satellite mining operation (**Satellite Operation**) scenario has also been modelled to illustrate a lower capital and operating cost approach to constructing a mining operation at Lo Herma. This approach would reduce CAPEX and OPEX but would require a toll processing agreement with an existing third-party facility. The comparative financial evaluation is provided below. The Satellite Operation alternative assumes a US\$5 per pound toll processing fee2, which is not supported at the time of publishing by an existing agreement between GTI and a third-party processing facility. Transportable resin tanks and loadout facilities are included in the satellite operation alternative cost estimate. Although the economics of satellite operations are favourable at the current project scale based on an assumed toll processing charge of US\$5 per pound, the CPP alternative is preferred as it would allow GTI to control production and costs through the production of a saleable product without dependence on another company's facility.



<sup>&</sup>lt;sup>2</sup> The Satellite Operation alternative assumes a US\$5 per pound toll processing fee, which is not yet supported by an existing agreement between GTI and a third-party processing facility. The CP is familiar with historical toll processing agreements and recommends using a US\$5.00 per pound increase in OPEX to account for the toll processing fee for the purposes of this scoping study

#### FIGURE 14: MINE UNITS AND PLANT LOCATION





## **Project Infrastructure**

The following infrastructure is included in the estimates of this scoping study.

#### **Primary Infrastructure:**

- ISR Wellfields
- Primary and Secondary Reverse Osmosis Plants
- Reagent Warehouse
- Central Processing Plant (ion exchange, precipitation, thickening, drying, packaging)
- Deep Disposal Well
- Freshwater wells

#### Support Infrastructure:

- Groundwater Monitoring Network
- Laboratory
- Changehouse
- Administrative building
- Guard trailer & security fence
- Backup generator

## Power, Water, Roads and Transportation

The estimated power usage for the central processing plant and support infrastructure is approximately 781kW. Existing power transmission lines are available nearby to several locations due to the existing oil, gas, and transmission infrastructure (**Figure 15**).

Mine Unit 1 is the furthest from existing line power. The central processing plant will be the closest source of line power for Mine Unit 1, with a distance of approximately 5850 feet from the central processing plant. The central processing plant is located approximately 2650 feet from existing line power.

Mine Unit 2 is located approximately 1250 feet from existing line power. Mine Unit 3 is located approximately 2250 feet from existing line power. Prior to operation of the project, power supply will be established to the proposed plant and wellfield header houses. Underground power lines from header houses to recovery wells will be run using direct burial wire. A formal estimate for wellfield and ancillary electric demands has not been made at this time.

Fresh groundwater will be supplied by two wells drilled onsite. Installed water supply capacity up to 20 US gpm is necessary to account for process water, evaporation, and ancillary facilities (showers, toilets, etc.).

The Converse County maintained 55 Ranch Road extends from the nearby town of Glenrock to the eastern margins of the project area (**Figure 16**). 55 Ranch Road is paved to the southern boundary of the Lo Herma project for the PacificCorp wind farm offices and shops. The county road transitions to a bladed and maintained gravelled road, which provides direct access to the many bladed improved dirt access roads which are used primarily for the Oil, Gas, and Transmission infrastructure across the project area. The planned mine units and CPP sites are accessed using the bladed improved dirt roads that are currently used by the other energy infrastructure projects. Smaller unimproved dirt two-track roads are used by ranchers for grazing activities and provide lighter duty access to parts of the project that are targets for exploration.





#### FIGURE 15: EXISTING LINE POWER INFRASTRUCTURE



#### FIGURE 16: EXISTING ROAD INFRASTRUCTURE



New temporary roads will need to be constructed for wellfield development and for additional exploration in the less accessible portions of the project area. Temporary access roads will be reclaimed at the end of mining and restoration operations. Winter snow removal and periodic surface maintenance will be performed as needed. Final drummed U<sub>3</sub>O<sub>8</sub> product will be loaded into 55-gallon drums and shipped via road from the Lo Herma project to be sold and shipped to its final destination. Railroad access is available in several nearby towns along the I-25 corridor including Glenrock and Casper. Appropriate shipment licenses and permits will need to be obtained from the U.S. Department of Transportation prior to start of production.

## Environment

Environmental assessments were performed on the Lo Herma Project site by Real West Natural Resource Consulting during 2023 and 2024. It was determined that site activities will have no effect to threatened or endangered wildlife species.

Wyoming mines have produced over 200 million pounds of uranium from both conventional and

ISR mine and mill operations. Production began in the early 1950's and continues to the present. The state has ranked as the number one US producer of uranium since 1994. Wyoming is considered generally favourable to mine development and provides a well-established environmental regulatory framework for ISR which has been conducted in the state since the 1960's.

The surface in and around the project area is presently used for livestock grazing and hunting. There is also significant energy production present in the region already, with oil and gas wells and energy pipeline transmission infrastructure scattered throughout the project. A major wind turbine generation facility exists along the east edge of the property. The existence of these established facilities may improve stakeholder and permitting outlook.

As the project is in its early stages the only stakeholder engagement conducted to date has been with the State of Wyoming, the BLM and local surface grazing rights holders. As the project proceeds, public engagement will be a necessary component of the permitting and licensing process.

Extensive studies including geology, hydrology, geochemistry, air quality, vegetation, wildlife, archaeology, meteorology, background radiometrics, and soils will likely be required by various permitting agencies. Contracted experts and staff will be required to complete these studies.

Groundwater monitoring wells are placed in accordance with current regulatory requirements for ISR mining. At least 1 year of groundwater sampling data is required to establish water quality background levels. This is a critical step as it is the basis for future aquifer restoration requirements.



During mining, considerable site monitoring takes place to ensure projection of the environment and protection of employees and the public from the mining activities. Perimeter monitor wells are typically placed in a ring at 500-foot spacings and 500 feet out, surrounding the wellfield perimeter. Sets of interior monitor wells are typically required above, below, and within the production zone for every four acres of wellfield. In some cases, tighter spacing of monitor wells may be required. Wells are typically sampled twice per month with the results compared against control limits.

Environmental monitoring will take place during mining and reclamation to monitor for radionuclide effluents. A network of monitoring controls including air samples, soils, surface water, and vegetation will be monitored to determine if mine effluent is causing impacts. Wildlife monitoring will take place as determined by the permitting agencies to cover a variety of species which may include greater sage-grouse, big game, migratory birds, and others.

## Permitting

The Project is located in Converse County Wyoming on BLM and State of Wyoming surface managed areas, with 3 private ranches also holding surface grazing rights across portions of the project area. The proposed processing site is located on BLM lands. Construction of the Project requires permits and approvals from various local, state, and federal agencies.

Wyoming is historically a mining state with a long history of ISR, underground and open pit mining. Several permits and licenses must be acquired from local, state and federal agencies to meet the established and permitting requirements regardless of the mining method.

Based on various sources of independent advice obtained by the Company to date, no local, state, or federal regulatory or permitting issues have been identified that could preclude approval for the Project's development. The known required permits are summarized below in **Table 8**.

Jurisdiction	Agency	Permit or Licence
Federal	U.S. Dept. of Interior Bureau of Land Management (BLM)	Plan of Operations Record of Decision
	U.S. Environmental Protection Agency (EPA)	Aquifer Exemption
State	Wyoming Department of	Mine Permit
	Environmental Quality (WDEQ) Divisions:	Source and Byproduct Material License
	<ul><li>Land Quality</li><li>Uranium Recovery Program</li></ul>	Underground Injection Control Class I Permit
	<ul><li>Water Quality</li><li>Air Quality</li></ul>	Underground Injection Control Class III Permit
		WYPDES Stormwater Permit
		Air Quality Permit
	Wyoming State Engineers Office	Well Permits – Groundwater Appropriations
County	Converse County	Industrial Activity Notice
		Septic System Permit

## TABLE 8: PERMITS REQUIRED FOR ISR MINING AND PROCESSING AT CPP



## **Reclamation and Closure**

The activities and costs associated with site closure and aquifer restoration have been included in the cash flow estimate. Mine closure will follow industry protocols including:

- Aquifer Restoration
  - Initial groundwater sweep of the wellfield followed by,
  - Recirculation and reverse osmosis treatment of groundwater up to six pore volumes,
  - Monitoring to demonstrate aquifer restoration to established standards,
  - Plugging and abandonment of production wells and
  - Abandonment of monitor wells following verification of successful groundwater restoration.
- Plant Decommissioning
  - Demolition and removal of all equipment,
  - Radiometric Screening of all site waste, and
  - Disposal of waste materials at suitable facilities based on radiometric screening.
- Surface Reclamation
  - Following removal of wellfield and plant infrastructure,
  - Removal and reclamation of temporary site roads,
  - Contouring and regrading of disturbed sites and
  - Replacement of stockpiled topsoil over disturbed areas followed by seeding.

Aquifer restoration will occur contemporaneously with the mining operation and then continue for up to 3 years after the end of mining. Surface reclamation of wellfields will occur following the completion of aquifer reclamation. The plant will be decommissioned once all uranium processing has ceased, and the aquifers are confirmed fully restored. The surface of the plant site will be restored following decommissioning. The restoration and reclamation cost assumptions are based on industry averages.

## **Development Schedule**

Predevelopment drilling is recommended to convert exploration target areas into resources to upgrade the current MRE. Additional resource delineation drilling is recommended to upgrade existing inferred resource areas to the indicated level.

Permitting is currently underway to conduct exploratory drilling to expand Mine Unit 1 to the north, as well as in and around Mine Unit 2. Installation of additional monitor/observation wells will lead into pump tests which will be conducted to further establish the hydrogeological parameters of the site. Additional laboratory testing of core samples will be conducted.

The recommended general timeline for project development tasks and workstreams to advance the project to construction and production is set out in **Figure 17** below.



#### FIGURE 17: LO HERMA PROJECT ESTIMATED DEVELOPMENT TIMELINE



## **Capital and Operating Cost Estimates**

A CAPEX of US\$67,410,000 is estimated for the project if constructed as a CPP, base case, and US\$56,687,000 if constructed as a Satellite Operation (see **Table 9** below for a breakdown).

## **TABLE 9: CAPITAL COST BREAKDOWN**

Expense Category	CPP Cost (US\$000s)	Satellite Cost (US\$000s)
Processing Plant	\$28,657	\$17,934
Replacement Equipment	\$5,000	\$5,000
Initial wellfield (9x header houses)	\$29,753	\$29,753
Permitting/Licensing	\$4,000	\$4,000
Total	\$67,410	\$56,687

The CPP capital expenses (Costs) were estimated by developing a material balance for recovery of one million pounds annually of  $U_3O_8$  from 4,565 US gallons per minute (gpm) of ISR pregnant leach solution (PLS) averaging 50 ppm  $U_3O_8$ . A design safety factor was applied to equipment and tank capacities by assuming an actual flowrate of 5,000 US gpm.

Operating costs for the base case with CPP are shown in **Table 10** that follows. For the Satellite Operation alternative, all operating costs other than the processing plant would remain the same.



GTI has held preliminary discussions with a potential CPP facility, that may accept resin for final processing but has not received any firm commitment to process resin or a processing price. BRS is familiar with resin toll processing agreements from past projects which would indicate only a slight differential in plant OPEX, however, in the current market it is likely that the cost differential will be greater.

BRS recommends using a \$5.00 per pound increase in OPEX to account for a third-party resin toll processing fee for the purposes of this scoping study.

#### TABLE 10: CPP OPERATING COST ESTIMATES

Direct Operating Costs	Cost per Pound US\$	Total Cost (US\$000s)
Processing Plant	\$8.36	\$40,001
Wellfield (Maintenance & Salaries)	\$7.13	\$34,116
Administration and Overhead	\$1.81	\$8,660
Wellfield Installation and Development	\$14.16	\$67,763
Operating Costs Subtotal	\$31.46	\$150,540
Other Direct Costs	Cost per Pound US\$	Total Cost (US\$000s)
Other Direct Costs Restoration and Reclamation	Cost per Pound US\$ \$5.00	<b>Total Cost (US\$000s)</b> \$23,924
Other Direct Costs Restoration and Reclamation Annual Disturbance Payments	Cost per Pound US\$ \$5.00 \$0.07	Total Cost (US\$000s)           \$23,924           \$314
Other Direct CostsRestoration and ReclamationAnnual Disturbance PaymentsTaxes (Severance, Ad Valorem)	Cost per Pound US\$ \$5.00 \$0.07 \$4.50	Total Cost (US\$000s)           \$23,924           \$314           \$21,532
Other Direct CostsRestoration and ReclamationAnnual Disturbance PaymentsTaxes (Severance, Ad Valorem)Other Direct Costs Subtotal	Cost per Pound US\$ \$5.00 \$0.07 \$4.50 \$9.57 \$9.57	Total Cost (US\$000s)           \$23,924           \$314           \$21,532           \$45,764

Costs for the processing plant were sourced from T.P. McNulty & Associates, Inc (TPM). More formal estimates would be based on a minimum of 10 to 100 drawings, depending on the intended precision of the estimate, and engineering firms refer to these as stages FEL-1, FEL-2, and FEL-3, where FEL is an acronym for Front-End Load. Such estimates are done as more information such as site characteristics, climate extremes, etc., become available. Typical precisions range from +50-/-25% for FEL-1 to +10/-5% for FEL-3. The estimate in this Study includes an allowance contingency of 20% and a likely precision of about +40/-20%.

For this estimate, an attempt to improve on precision was made by creating an equipment list that is as complete as possible, including all major equipment items plus tanks, pumps, mixers, instrumentation, laboratory equipment, and buildings. Costs were obtained from several sources including the 2024 edition of Mining Cost Service, to which TPM subscribes, project files, and current vendor quotations. Purchase prices were escalated an average of 7% to mid-2025.

Conceptual wellfield layout and units were developed by BRS. Costs for the wellfield were based on recent experience and wellfield development costs from nearby ISR projects, adjusted for drillhole depth. Capital costs for the wellfield include the first 9 header houses in Mine Unit 1 and associated production wells, monitoring wells, trunk lines, pumps, etc, which is sufficient to bring the plant to full production capacity. Subsequent wellfield development after the initial installation costs are covered in the Operating Cost category. Wellfield development costs were obtained from various nearby ISR operations and escalated for wellfield depth. The total initial wellfield development cost is estimated at US\$29,753,000.



### TABLE 11: LO HERMA SCOPING STUDY KEY PHYSICAL PARAMETERS

Key Physical Parameters	Unit	Total/LOM
Operations		
Construction period	months	~18
Annual production rate (Recovered @ 80%)	lbs U₃O <sub>8</sub> pa	800,000
Initial production life	years	7
Processing		
Average grade of Mineral Resource	ppm U <sub>3</sub> O <sub>8</sub>	630
Estimated PLS grade from wellfield	ppm U <sub>3</sub> O <sub>8</sub>	50
Forecast overall uranium recovery	%	80
Output		
Total U <sub>3</sub> O <sub>8</sub> production (Production Target)	MIbs U <sub>3</sub> O <sub>8</sub>	5.98

#### TABLE 12: LO HERMA SCOPING STUDY KEY ECONOMIC OUTCOMES FOR CPP OPERATION

Metrics	Unit	СРР
Price Inputs		
LOM Average Uranium Price	US\$/lb U <sub>3</sub> O <sub>8</sub>	90
A\$ to US\$ Exchange Rate Assumption	US\$	0.63
Valuation, Indicative Returns and Ratios		
NPV <sub>8</sub> (pre-tax)	US\$M	110
NPV <sub>8</sub> (pre-tax)	A\$M	174
IRR (pre-tax)	%	52
Capex Including Initial Wellfield	US\$M	67
Capex Including Initial Wellfield	A\$M	107
Payback Period (pre-tax from first production)	Years	2.5
Cash Flow Summary		
Sales Revenue (gross)	US\$M	431
Direct Processing Opex Excl Sustaining Capex	US\$M	83
Other Direct Costs (reclamation, taxes, land payments)	US\$M	46
Cash Operating Costs	US\$M	129
Sustaining Capex (incl. ongoing wellfield development)	US\$M	73
All In Sustaining Costs (AISC)	US\$M	196
Pre-production Capex	US\$M	43
Pre-production Capex	A\$M	68
Net Cash Flow (pre-tax)	US\$M	167
Net Cash Flow (pre-tax)	A\$M	265
Net Cash Flow (pre-tax)	US\$/Ib U₃O <sub>8</sub>	35
Net Cash Flow (pre-tax)	A\$/Ib U <sub>3</sub> O <sub>8</sub>	55
Unit Operating Costs		
Cash Operating Costs	US\$/Ib U <sub>3</sub> O <sub>8</sub>	32
AISC	US\$/Ib U <sub>3</sub> O <sub>8</sub>	41



#### TABLE 13: LO HERMA CPP PROJECT CASHFLOW

Year	Totals	-2	-1	0	1	2	3	4	5		6	7		8	9		10	11	TOTAL	US	\$/Ib
Pounds contained U.O. (000's)	E 081				200	800	1 000	1 000	1.	000	1 000		001						E 091		
	3,301				240	600	1,000	1,000	1,	000	1,000	-	705						3,301		
Pounds recovered $U_3 U_8 (000^{\circ}s)$	4,785				240	640	800	800		800	800		/05	-		-	-		4,785		
Recovery % U <sub>3</sub> O <sub>8</sub>	80%				80%	80%	80%	80%		80%	80%		80%	80%		30%	80%				
U <sub>3</sub> O <sub>8</sub> price/pound US\$	\$90				\$ 90.00	\$ 90.00	\$ 90.00	\$ 90.00	\$ 90	0.00	\$ 90.00	\$ 90	.00 \$	90.00	\$ 90	.00	\$ 90.00				
U₃O <sub>8</sub> revenue US\$					\$ 21,600	\$ 57,600	\$ 72,000	\$ 72,000	\$72,	000	\$ 72,000	\$ 63,4	432 \$	-	\$	-	\$-		\$ 430,632	\$ 9	0.00
Direct Operating Costs:																					
Plant OPEX	\$8.36				2.006	5.350	6.688	6.688	6.	688	6.688	5.8	392	0		0	0		40.001	Ś	8.36
Welfield (WF) Opex per year	\$7.13				1,711	4,563	5,704	5,704	5,	704	5,704	5,0	025	0		0	0		34,116	\$	7.13
Administrative and overhead	\$1.81				434	1,158	1,448	1,448	1,4	448	1,448	1,2	276	0		0	0		8,660	\$	1.81
Welfield Install post initial WF	67,440						17,177	17,177	17,	177	16,233								67,763	\$ 1	4.16
Subtotal Direct Processing Costs					\$ 4,152	\$ 11,072	\$ 31,017	\$ 31,017	\$ 31,	017	\$ 30,073	\$ 12,3	193 \$	-	\$	-	\$-		\$ 150,540	\$ 3	1.46
Other Direct Costs:	Unit Price																				
Restoration and Reclamation	\$ 5.00													7.975	7	975	7,975		23,924	Ś	5.00
Annual Land Owner Payments	200 acres @ \$200			6	12	18	24.4	30.8		37.2	37.2	3	37.2	37.2		37.2	37.2		314	Ś	0.07
Taxes (Severance, Ad Valorem)	\$ 4.50				1.080	2.880	3.600	3.600	3	.600	3.600	3	172	0		0	0		21.532	Ś	4.50
Subtotal Other Direct Costs				\$6	\$ 1,092	\$ 2,898	\$ 3,624	\$ 3,631	\$ 3,	637	\$ 3,637	\$ 3,2	209 \$	8,012	\$ 8,0	)12	\$ 8,012		\$ 45,764	\$	9.56
TOTAL OPEX US\$ 000's				\$6	\$ 5,244	\$ 13,970	\$ 34,641	\$ 34,647	\$ 34,	654	\$ 33,710	\$ 15,4	402 \$	8,012	\$ 8,0	)12	\$ 8,012		\$ 196,304	\$ 4	1.03
Cash Flow Pre-tax US\$ 000's				\$ (6)	\$ 16,356	\$ 43,630	\$ 37,359	\$ 37,353	\$ 37,	346	\$ 38,290	\$ 48,0	030 \$	(8,012)	\$ (8,0	)12)	\$ (8,012)		\$ 234,328	\$ 4	<mark>8.97</mark>
Capital Expenditures:																					
Permitting and Licensing:																					
Central Processing Plant	\$ 2,000		1,000	1,000															2,000	\$	0.42
Wellfields	\$ 2,000		400	450															850	\$	0.18
Development Engineering		1,150																	1,150	\$	0.24
Central Processing Facility:																					
Plant and Disposal Well	\$ 22,112			22,112															22,112	\$	4.62
Indirects (Engineering, CM, etc)	\$ 1,769			1,769															1,769	\$	0.37
Other Direct Cost Allowance 20%	\$ 4,776			4,776															4,776	\$	1.00
Working Capital For Operations	3 months OPEX				3,202													(3,202)			
Initial Wellfield CAPEX	\$ 29,753			9,918	9,918	9,918													29,753	\$	6.22
Replacement Plant Equipment						1,000	1,000	1,000	1,0	000	1,000								5,000	Ş	1.04
TOTAL CAPITAL EXPENDITURES		Ş 1,150	1400	\$ 40,025	\$ 13,120	Ş 10,918	Ş 1,000	\$ 1,000	Ş 1,	000	Ş 1,000	\$	- \$	-	Ş	-	Ş -	\$ (3,202)	\$ 67,410	Ş 1	.4.09
NET CASH FLOW		\$ (1,150)	\$ (1,400)	\$ (40,031)	\$ 3,236	\$ 32,712	\$ 36,359	\$ 36,353	\$ 36,	346	\$ 37,290	\$ 48,0	030 \$	(8,012)	\$ (8,0	)12)	\$ (8,012)	\$ 3,202	\$ 166,912	\$ 3	4.88
CUMULATIVE NET CASH FLOW		\$ (1,150)	\$ (2,550)	\$ (42,581)	\$ (39,345)	\$ (6,632)	\$ 29,727	\$ 66,079	\$ 102,	425	\$ 139,716	\$ 187,	746 \$	179,734	\$ 171,	22	\$ 163,710	\$ 166,912			
NET CASH FLOW (costs prior to y	r 0 captured in yr 0)			\$ (42,581)	\$ 3,236	\$ 32,712	\$ 36,359	\$ 36,353	\$ 36,	346	\$ 37,290	\$ 48,0	030 \$	(8,012)	\$ (8,0	)12)	\$ (8,012)	\$ 3,202			



## **Project Payback and Breakeven Price Scenario**

The Project Payback occurs in approximately 2.5 years from the start of production and the breakeven uranium price over the economic evaluation period is ~US\$60. If the uranium price falls below US\$60 the Project may not be economically attractive.

## **NPV Sensitivity Analysis**

The base case financial analysis at \$90 per pound and with an overall recovery of 80%, yields the following parameters pre-US income tax.

CPP Operation	US\$ (000s)
NPV at 5% discount rate	\$128,293
NPV at 8% discount rate	\$109,631
NPV at 10% discount rate	\$98,705
NPV at 12% discount rate	\$88,828
NPV at 15% discount rate	\$75,719
IRR	52%

TABLE 14: DISCOUNT	<b>RATE SENSITIVITY</b>	ANALYSIS FO	OR CPP OPFRATION
		ANALI SIS I V	

As an alternative the project was also evaluated as a Satellite Operation. This approach would reduce CAPEX by ~US\$10M but would require a toll processing agreement with an existing third-party facility. The comparative financial evaluation follows. The Satellite Operation alternative assumes a US\$5 per pound toll processing fee, which is not yet supported by an existing agreement between GTI and a third-party processing facility.

#### TABLE 15: DISCOUNT RATE SENSITIVITY ANALYSIS FOR SATELLITE OPERATION

Satellite Operation	US\$ (000s)
NPV at 5% discount rate	\$136,418
NPV at 8% discount rate	\$118,026
NPV at 10% discount rate	\$107,259
NPV at 12% discount rate	\$97,525
NPV at 15% discount rate	\$84,607
IRR	66%

Sensitivity analyses were run on the internal rate of return (IRR) and net present value (NPV) at a discount rate of 8% for price per pound of uranium (**Figure 18**), recovery rate (**Figure 19**) and contingency percentage (**Figure 20**). For the purposes of the NPV analyses, pre-production expenditure on the Project is aggregated into Year 0 (**Table 13**).





#### FIGURE 18: SENSITIVITY TO URANIUM PRICE PER POUND











While each variable is assessed independently, it is notable that none of the circumstances assessed brought the project to a negative return. Multiple factors may coincide and interact in unforeseen ways. Sensitivity analyses help evaluate multiple scenarios in order to determine the relative likelihood that results approximating the estimated cash flow will be achieved.

## Uranium Price and Market Outlook

Uranium does not trade on an open market like other commodities. Buyers and sellers predominantly negotiate contracts privately. The following is from Cameco's web site. Cameco is among the world leaders in uranium production (<u>https://www.cameco.com/invest/markets/uranium-price</u>).

Cameco calculates industry average prices from the month-end prices published prices by UxC and Trade Tech and publishes these prices on their web site. Cameco states a current (March 2025) long term price of \$80.00. BRS has also reviewed uranium prices from recently published PEA, Scoping and PFS studies for uranium projects and found that commodity prices in excess of \$80.00 were common. Examples include,

- Dewey Burdock Project, enCore Energy, PEA, January 6, 2025, average commodity price based on Trade Tech reported prices 2023, US\$86.34 per pound. <u>https://encoreuranium.com/projects/dewey-burdock-uranium-project/</u>
- Shirley Basin Project, Ur Energy, SK-1300, March 11, 2024, average commodity price based on Cantor Fitzgerald Canada Corporation, 9/26/2023, PI financial Corp. 0/3/2023 and UxC, LLC Q4 2023, in a range of \$82.46 to US\$86.21 per pound. <u>https://www.urenergy.com/projects/shirley-basin</u>
- **Tallahassee Project**, Global Uranium and Enrichment Ltd, Scoping Study, May 6, 2025 (<u>https://wcsecure.weblink.com.au/pdf/GUE/02943663.pdf</u>). The average commodity price for the life of the project of US\$90.00 per pound is based on the two year outlook price forecast from the Australian Department of Industry Science and Resources September 2024 Resource and Energy Quarterly Report. <u>https://www.industry.gov.au/publications/resources-and-energyguarterly-september-2024#uranium-11.</u>

The latest price forecast from the Australian Department of Industry Science and Resources March 2025 Resource and Energy Quarterly Report states "uranium prices are expected to rise from US\$87 a pound in 2024 to US\$93 a pound in 2030 (in real terms)". <u>https://www.industry.gov.au/publications/resources-and-energy-quarterly-march-2025#uranium-9</u>.

Thus, BRS and the Company conclude that the use of a \$90.00 per pound price for uranium for the base case for this Scoping Study is reasonable.

## Funding

GTI believes that the Scoping Study provides reasonable grounds to believe that the Lo Herma Project will be a sufficiently economically viable project to enable funding to be procured for its development and operation once further data is collected and studies are conducted. To achieve the range of outcomes indicated in this Scoping Study, pre-production capital funding of approximately US\$43M (incl. working capital and excl. nett cash contributed from year 1 operations) for a CPP and approximately US\$32M (incl. working capital and excl. cash contributed from year 1 operations) for a Satellite Operation is expected to be required. A prerequisite for GTI to attract future funding, in the form of either debt and/or equity, is likely to be completion of a more detailed prefeasibility level study that demonstrates at a high confidence level that sufficient financial and technical outcomes exist to satisfy the providers of such funding. There is no certainty that GTI will be able to source the required amount of funding. It is also possible that such funding



may only be available on terms that may be dilutive to or otherwise affect the value of GTI's shares. It is also possible that GTI could pursue other value realisation strategies such as a sale, partial sale or joint venture. This could materially reduce the Company's proportionate ownership in the Project.

## **Project Risks**

BRS and the Company are not aware of environmental, permitting, legal, title, taxation, socioeconomic, marketing, political, or other relevant factors not stated herein which would materially affect the mineral resource estimates or the results of the Scoping Study provided the conditions of all mineral leases and options, and relevant operating permits and licenses are met. A summary of risks follows, categorized in terms of technical and permitting and licensing risks are provided below.

Technical Risks:

The Project does have some risks similar in nature to other mining projects in general and uranium mining projects specially, i.e., risks common to mining projects including:

- Future commodity demand and pricing.
- Environmental and political acceptance of the project.
- Variance in capital and operating costs.
- Mine and mineral processing recovery and dilution.
- Continuity of mineralization with respect to thickness and grade may vary.
- Mining claims are subject to the Mining Law of 1872. Changes in the mining law could affect the mineral tenure.

Permitting and Licensing Risks:

Construction of the Project requires permits and approvals from various local, state, and federal agencies which may not be secured. To BRS's knowledge there are no other significant factors that may affect access, title, or the right or ability to perform work on the property, provided the conditions of all mineral leases and options and relevant operating permits and licenses are met.

The following risks may impact project feasibility or profitability as of the current Study:

- 1. Not all areas in the Mineral Resource areas have had their water table elevation empirically determined. There is the potential that some amount of Mine Unit 3 may later be determined not to be ISR-amenable.
- 2. Much of the Lo Herma project area is on private land (where the landholders hold surface grazing rights but no mineral rights), access to which is subject to surface use agreements at the landowner's discretion. Current surface use agreements exist for site access and exploration level activities. Surface use agreements for mining purposes are yet to be finalized.

Readers are cautioned that any estimate of forward cost or commodity price is by its nature forward-looking. It would be unreasonable to rely on any such forward-looking statements and information as creating any legal rights. The statements and information are not guarantees and may involve known and unknown risks and uncertainties, and actual results are likely to differ (and may differ materially) and objectives and strategies may differ or change from those expressed or implied in the forward-looking statements or information as a result of various factors. Such risks and uncertainties include risks generally encountered in the exploration, development, operation, and closure of mineral properties and processing facilities. Forward-looking statements are subject to a variety of known and unknown risks and uncertainties.



## **Conclusions, Opportunities and Next Steps**

The proposed Lo Herma project currently encompasses a wellfield of three mine units over 5.98Mlbs U<sub>3</sub>O<sub>8</sub> and a central processing facility capable of processing, packaging, and shipping saleable U<sub>3</sub>O<sub>8</sub>. The proposed mining method is ISR due to its relative low cost and low surface impact. Current hydrogeological and metallurgical testing indicate that the mineralized body is likely ISR-amenable. The project has several factors improving its outlook. The project area has numerous industrial activities related hydrocarbon production in the vicinity with infrastructure such as power lines and roads generally available. Additionally, it is located in the immediate vicinity of successful ISR operations, indicating a strong likelihood of amenability in the mineralized body.

The current proposed production timeline is 7 years with a production target of 800,000lbs  $U_3O_8$  per year. This could be extended if more mineralized material is found in the Exploration Target. The current recommended development timeline starts construction as soon as 2028.

The key highlights from the Scoping Study are:

- Robust project economics with expansion potential from resource and exploration upside.
- Low initial capital cost estimate, competitive operating cost profile<sup>3</sup>
- Project optionality for either a CPP or Satellite Operation

Recommended next steps for this project are as follows:

- Groundwater pumping tests to further define the local hydrogeologic regime, including the degree of hydraulic separation within the Formations and between sandstone units, hydraulic gradient, direction and rate of groundwater flow, horizontal conductivity, transmissivity, as well as storativity values.
- Metallurgical testing of additional core samples will be necessary to better define reaction kinetics and lixiviant parameters.
- Continued exploration drilling may allow an upgrade in the Mineral Resource Estimate and allow for improved accuracy in wellfield designs.

The estimated cost to complete the foregoing recommendations is approximately US\$5 million.

#### -ENDS-

This ASX release was authorised by the Directors of GTI Energy Ltd. Bruce Lane, (Director), GTI Energy Ltd

#### **Competent Persons Statement**

Information in this announcement relating to Exploration Results, Exploration Targets, and Mineral Resources Estimates (MRE) is based on information compiled and fairly represents the exploration status of the project. Doug Beahm has reviewed the information and has approved the scientific and technical matters of this disclosure. Mr. Beahm is a Principal Engineer with BRS Engineering Inc. (BRS) with over 50 years of experience in mineral exploration and project evaluation. Mr. Beahm is a Registered Member of the Society of Mining, Metallurgy and Exploration, and is a Professional Engineer (Wyoming, Utah, Colorado and Oregon) and a Professional Geologist (Wyoming). Mr Beahm has worked in uranium exploration, mining, and mine land reclamation in the Western US since 1975 and has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and has reviewed the activity which has been undertaken, to qualify as a Competent Person as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of exploration results, Mineral Resources & Ore Reserves. Mr Beahm provides his consent to the information provided. The Company confirms that it is not aware of any new information or data that materially affects the information included in this announcement and, in the case of MRE's, that all material assumptions and technical parameters underpinning the estimates in this announcement continue to apply and have not materially changed.



<sup>&</sup>lt;sup>3</sup> Encore Energy Inc.:https://encoreuranium.com/news/encore-energy-reports-g1-2025-financial-results-highlighted-by- reduced-uranium-extraction-costs/ Ur-Energy Inc.:https://www.ur-energy.com/news-media/press-releases/detail/381/ur-energy-releases-2025-g1-results-and-announces-receipt-of

#### **Competent Persons Statement Continued**

The information for the metallurgy, leaching, ion exchange and the Mineral Resource included in this report is extracted from the reports entitled "Major 50% Upgrade Boosts Lo Herma Uranium Resource to 8.57Mlbs, Scoping Study Initiated" created on 16 December 2024, "Positive Uranium Leach Test Results at Lo Herma ISR Uranium Project" created on 11 February 2025 and "Key Milestone Achieved, Scoping Study Fieldwork & Testing Completed Confirmation of Favourable ISR Hydrogeology" created on 05 March 2025. These are available to view on the ASAX platform and the GTI Energy Limited website. GTI Energy Ltd confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements and, in the case of estimates of Mineral Resources, that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. GTI Energy Ltd confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcements.

#### **Caution Regarding Forward Looking Statements**

This announcement may contain forward looking statements which involve a number of risks and uncertainties. Forwardlooking statements are expressed in good faith and are believed to have a reasonable basis as detailed in Appendix A. These statements reflect current expectations, intentions or strategies regarding the future and assumptions based on currently available information. Should one or more risks or uncertainties materialise, or should underlying assumptions prove incorrect, actual results may vary from the expectations, intentions and strategies described in this announcement. The forward-looking statements are made as at the date of this announcement and the Company disclaims any intent or obligation to update publicly such forward looking statements, whether as the result of new information, future events or results or otherwise.

# Consulting Reports, Sources and References used in this Announcement and in preparation of the Scoping Study:

- BRS Engineering Inc. May 2025, "Scoping Study, Lo Herma In Situ Recovery Uranium Project, Wyoming USA"
- Garling, R., January 2025, Lo Herma Core Agitation Leach Test, R and D Enterprises, Inc.
- R and D Enterprises, Inc. ("RDI") On January 23, 2025, Report summarizing the results of two agitated leaching tests that were conducted jointly with Pace Analytical ("PA").
- T.P. McNulty & Associates, Inc. provided costs for the processing plant.
- Hinaman, K., 2005, Hydrogeologic Framework and Estimates of Ground-Water Volumes in Tertiary and Upper Cretaceous Hydrogeologic Units in the Powder River Basin, Wyoming
- Malensek, G. A., Mathisen, M. B., Collyard, J. S., Woods, J. L., & Brown, P. E. (2023). *Technical report on the Nichols Ranch Project, Campbell and Johnson Counties, Wyoming, USA* Prepared for Energy Fuels Inc. SLR International Corporation.
- Schiffer, B. J., & Moores, R. (2024). *National Instrument 43-101 Amended preliminary economic assessment Shirley Basin ISR Uranium Project, Carbon County, Wyoming, USA*. Prepared for Ur-Energy Inc. WWC Engineering.
- Soliz, S. B. (2025). *National Instrument 43-101 preliminary economic assessment technical report: Dewey Burdock Project, South Dakota, USA*. Prepared for enCore Energy Corporation. SOLA Project Services LLC.
- Terry McNulty, et al., *Solution Mining and In Situ Leaching*, SME Mineral Processing & Extractive Metallurgy Handbook, Volume Two (2019), pages 1191-1206.
- World Nuclear Association. (n.d.). In-situ leach mining of uranium. Retrieved May 16, 2025, from <a href="https://world-nuclear.org/information-library/nuclear-fuel-cycle/mining-of-uranium/in-situ-leach-mining-of-uranium">https://world-nuclear.org/information-library/nuclear-fuel-cycle/mining-of-uranium/in-situ-leach-mining-of-uranium</a>
- Cameco. (n.d.). *Uranium price*. Retrieved April 24, 2025, from https://www.cameco.com/invest/markets/uranium-price



#### GTI LO HERMA ASX RELEASES REFERENCED IN SCOPING STUDY:

Date	Title	Description
21/02/2023	GTI Secures Significant New Uranium Project in Wyoming, 10 Miles from Cameco's Smith Ranch- Highland ISR Uranium Facility	Lo Herma acquisition
05/04/2023	Maiden Mineral Resource & Exploration Targets for Great Divide Basin Projects & Lo Herma	Initial exploration target release
05/07/2023	Maiden Uranium Resource & Exploration Target Update at Lo Herma ISR Project	Mineral Resource Estimate
20/12/2023	Drilling Successfully Verifies Historical Data & Confirms Exploration Potential at Lo Herma ISR Uranium Project	Phase I drilling results
31/07/2024	Positive Start to Dilling at Lo Herma ISR Uranium Project	Phase II drilling start
12/09/2024	Drilling Success Expands Mineralised Trends at Lo Herma	Phase II drilling update
19/09/2024	Latest Drilling Confirms Deeper Mineralised Trends at Lo Herma	Phase II drilling update
16/12/2024	Major 50% Upgrade Boosts Lo Herma Uranium Resource to 8.57Mlbs, Scoping Study Initiated	MRE update, Phase II Drilling complete
11/02/2025	Positive Uranium Leach Test Results at Lo Herma ISR Uranium Project	Metallurgical test results
05/03/2025	Key Milestone Achieved, Scoping Study Fieldwork & Testing Completed Confirmation of Favourable ISR Hydrogeology	Hydrogeologic Data

Where the Company refers to Exploration Results in this announcement (referencing previous releases), the Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement

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Esri, NASA, NGA, USGS, & FEMA. (n.d.). World Hillshade [Map layer].

Gregory, R. W., & Micale, D. C. (2007). *Geologic map of the Bill 30'x60' quadrangle, Converse, Campbell, and Weston counties, Wyoming* [Map]. Wyoming State Geological Survey Map Series 72, scale 1:100,000.



#### APPENDIX A: REASONABLE BASIS FOR FORWARD LOOKING STATEMENTS

No Ore Reserve has been declared. This ASX release has been prepared in compliance with the current JORC Code (2012) and the ASX Listing Rules. All material assumptions on which the Scoping Study production target and projected financial information are based have been included in this announcement and or disclosed in the table below.

### Modifying Factors Considered (in the form of Section 4 of the JORC Code (2012) Table 1)

Area	Assumptions
Study parameters and Status	<ul> <li>No Ore Reserve has been declared; the Study is a scoping level study.</li> <li>The Scoping Study has been prepared in accordance with the JORC Code 2012, by BRS Engineering Inc. (BRS) and with accuracy of+/- 30-40%. There is no certainty that the findings of the Scoping Study will be realized.</li> <li>The Competent Person's (CP) Statement is found on pages 43 and 44 of this announcement.</li> <li>The Company retains a 100% interest in the Project.</li> </ul>
Mineral Resource Estimate (MRE)	<ul> <li>No Ore Reserve has been declared as part of the Scoping Study. The MRE on which the Scoping Study is based was prepared, in accordance with the JORC Code 2012, by BRS and separately and previously announced on 16 December 2024 <u>Major 50% Upgrade Boosts Lo Herma Uranium Resource to 8.57Mlbs</u>, <u>Scoping Study Initiated</u>".</li> <li>The MRE stands at Indicated and Inferred Mineral Resource with approximately 32% of the uranium resource is in the Indicated category and 68% is in the Inferred category.</li> <li>The MRE has been calculated by applying a cutoff grade of 200 ppm eU<sub>3</sub>O<sub>8</sub> and a grade thickness (GT) cutoff of 0.2 GT. The cut-off parameters used are typical of ISR uranium industry standards within the Powder River Basin and the Wyoming ISR industry at large. The cut-off criteria used in the estimation is applicable to mining by ISR methods or conventional open pit mining.</li> <li>Mineral resources are quoted at an average grade of 630 ppm eU<sub>3</sub>O<sub>8</sub> and an ISR appropriate cut-off grade of 200 ppm U<sub>3</sub>O<sub>8</sub> and an ISR appropriate cut-off the cut-off grade parameters for the Mineral Resource estimate are provided in the Mineral Resource estimate announcement of <u>16 December 2024</u>.</li> </ul>
Site visits	<ul> <li>Site visit information and commentary pertaining to the Mineral Resource estimate are provided in the Mineral Resource estimate announcement of <u>16 December 2024</u>.</li> <li>The CP has attended the site on many occasions and conducted a recent site visit on 4 February 2025 in conjunction with the Study and to observe the drilling and installation of groundwater monitoring wells.</li> </ul>
Mining factors or assumptions	<ul> <li>The Project is focused on mining by In-Situ Recovery (ISR) methods and is based on the MRE.</li> <li>For this study, resources situated at least 50 feet below the static water table are deemed saturated and suitable for ISR mining.</li> <li>Leach amenability studies were conducted to demonstrate that uranium mineralisation from Lo Herma is capable of being solubilized using conventional alkaline ISR chemistry. The studies evaluated uranium extraction rates and efficiencies from Lo Herma Project mineralisation samples. Further studies using additional core samples from future drilling will need to be tested to increase confidence levels and optimize for extraction and processing.</li> <li>The CP notes that the style of mineralisation and the experience to date in converting Inferred Mineral Resources to the Indicated category provides a reasonable basis for their inclusion.</li> </ul>



Metallurgical factors or assumptions	<ul> <li>BRS engaged Wyoming based specialist consultants R And D Enterprises Inc. (RDE) to perform agitation leach studies on core recovered from the Lo Herma Project. RDE worked in conjunction with Pace Analytical (PA) to perform the required testwork, and analysis of solutions and residual solids. These data were reviewed by BRS and are assumed to be appropriate for this Study.</li> <li>Further studies using additional core samples from future drilling will need to be tested to increase confidence levels and optimize for extraction and processing.</li> <li>Metallurgical amenability was not considered for the MRE.</li> </ul>						
Processing	<ul> <li>The place column precipi bicarbo</li> <li>The de Resou operat</li> </ul>	<ul> <li>The planned process is to deliver well field pregnant leach liquor (PLS) to ion exchange (IX) resin columns, load the resin with uranyl carbonate, elute the resin with aqueous sodium chloride, precipitate U<sub>3</sub>O<sub>8</sub> from the rich eluate, reconstitute the barren eluate with addition of sodium bicarbonate (adjusting pH if needed with carbon dioxide), and re-inject into wells.</li> <li>The derivation of the pregnant leach liquor (PLS) (feed grade) estimate comes from the Mineral Resource Estimate of <u>16 December 2024</u> and was QAQC'd against PLS grades for analogous operations.</li> </ul>					
Transportation	Final dru shipped t several n licenses of produc	Final drummed $U_3O_8$ product would be shipped via road from the Lo Herma project to be sold and shipped to its final destination which expected to be within the US. Railroad access is available in several nearby towns along the I-25 corridor including Glenrock and Casper. Appropriate shipment licenses and permits will need to be obtained from the U.S. Department of Transportation prior to start of production.					
Permitting	The known required permits for the Project, excluding for transportation (discussed above), are summarized below:						
	Federal	U.S. Dept. of Interior Bureau of Land Management (BLM)	Plan of Operations Record of Decision				
		US Environmental Protection Agency (EPA)	Aquifer Exemption				
	State	Wyoming Department of Environmental	Mine Permit				
		Quality (WDEQ) Divisions:	Source and Byproduct Material License				
		<ul> <li>Land Quality</li> <li>Uranium Recovery Program</li> </ul>	Underground Injection Control Class I Perm				
		Water Quality	Underground Injection Control Class III Permit				
		Air Quality	WYPDES Stormwater Permit				
			Air Quality Permit				
		Wyoming State Engineers Office	Well Permits – Groundwater Appropriations				
	County	Converse County	Industrial Activity Notice				
			Septic System Permit				
Environmental	<ul> <li>Environmental impacts of the Project are generally recognized by and are reflected in the conceptual design implicit in the Scoping Study.</li> <li>The mining and processing process is environmentally benign.</li> <li>The Company currently holds exploration/prospecting permits. Additional permits are required for future mining, construction and processing.</li> </ul>						
Infrastructure	<ul> <li>Existing power transmission lines are available nearby at several locations. The CPP is located approximately 2,650 ft from existing line power. Mine Unit 1 is ~5,850 ft from the planned CPP location, Mine Unit 2 (~1,250 ft) and Mine Unit 3 (~2,250 ft) are both proximate to existing line power.</li> <li>Fresh groundwater will be supplied by two wells drilled onsite.</li> </ul>						
	<ul> <li>55 Ranch Road is paved to the Projects boundary and transitions to a bladed and maintained graveled road, providing access to the many bladed improved dirt access roads across the project area including to the planned mine units and CPP sites.</li> </ul>						



Costs	<ul> <li>To achieve the range of outcomes indicated in the Scoping Study, pre-production funding of approximately US\$43m for the base case CPP project. This is a low accuracy estimate and will be subject to further higher accuracy estimation as the project progresses and is subjected to prefeasibility level analyses. Costs for the processing plant were sourced from T.P. McNulty &amp; Associates, Inc.</li> <li>The total capital investment over the life of mine is estimated to be approximately ~US\$67m, including the cost of initial wellfield installation. ~US\$67m for ongoing wellfield installation for years 3-6 are included in Direct Operating Costs.</li> <li>Direct Operating Costs including ongoing wellfield installation are estimated at ~\$US196m.</li> </ul>
Revenue and Exchange Rate factors	<ul> <li>The product to be sold is Uranium Oxide Concentrate (UOC), no other co-product is applicable. Refer to this announcement for commodity price assumptions.</li> <li>Four revenue cases were run for each mining/processing scenario: US\$80, \$85, US\$90, and US\$95/lb U<sub>3</sub>O<sub>8</sub>. The base case for the Scoping Study was set at US\$90/lb U<sub>3</sub>O<sub>8</sub> price.</li> <li>Estimates in this announcement are presented in US\$ and in some cases AU\$. The USD to AUD exchange rate used in this announcement is: Australian Dollar 1.00 = USD 0.63</li> </ul>
Project schedule	The Project is assumed to require approximately 3-4 years of pre-mining activities and is estimated to have a 7-year mine life based on the current MRE.
Economic parameters	<ul> <li>The Study has been completed with a +/-30-40% accuracy for all cost estimation. Allowances of 20% are included on initial capital costs associated with construction of the processing plant.</li> <li>There are no private royalties. State Severance and Ad Valorem taxes have been included. Further negotiations with surface rights holders are required to finalise associated costs.</li> <li>BRS is familiar with resin toll processing agreements from past projects which would indicate only a slight differential in plant OPEX, however, in the current market it is likely that the cost differential will be greater. BRS recommends using a \$5.00 per pound increase in OPEX to account for a third-party resin toll processing fee for the purposes of this scoping study.</li> </ul>
Community and social responsibility	Consultation with the local communities, the public, non-governmental organisations and private interests have not been undertaken and will progress in future. Further agreements are required with surface rights holders. Timelines are approximate and may be impacted by many factors.
Other (incl legal and governmental)	<ul> <li>Risks to the Project relate to uranium price, social license, and other risks as are customary for similar projects.</li> <li>No material naturally occurring risks have been identified but a risk assessment is presented in the Project Risks section of this Announcement.</li> <li>The Company continues to undertake relevant studies to support necessary government approvals processes to develop the Project.</li> <li>There are no marketing agreements in place.</li> <li>The mineral rights are 100% owned by a subsidiary of GTI Energy Ltd called Lo Herma Pty Ltd which in turn owns 100% of US domiciled Lo Herma LLC which holds the tenements. GTI Energy is the operator of the tenements.</li> <li>Further agreements for development &amp; wellfield construction are required with surface rights holders.</li> </ul>
Discussion of relative accuracy/ confidence	<ul> <li>No Ore Reserve has been declared.</li> <li>The Scoping Study has been prepared with accuracy of +/- 30-40%. There is no certainty that the findings of the Scoping Study will be realized.</li> </ul>
Audits or reviews	The Scoping Study was prepared and reviewed under the JORC code 2012.

